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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

(Previously Presented) 1.   A travel planning system comprises:

a computer system, comprising:

a processor; and

a memory storing processes for executing on the processor, the processes, comprising:

a scheduling process to provide a set of instances of transportation that satisfy a user query; and

an availability process that accesses seat availability information from multiple sources of seat availability information, receives the instances of transportation and uses results from a first source of the multiple sources of seat availability information for a mode of transportation to determine a set of instances of transportation for which a seat is available from the received instances of transportation;

determines quality properties of the availability information from the first source of seat availability information; and

determines, based on the quality properties, whether the first source of seat availability information is reliable, and if the results are not reliable, the availability process executes a second set of seat availability queries to the first source or a different one of the multiple sources of seat availability information based on the outcome of determining quality properties, to provide a second set of instances of transportation for which a seat is available.

(Previously Presented) 2.   The travel planning system of claim 1 wherein if the availability process determines that the first source of seat availability information is reliable, the availability process returns the results.

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(Previously Presented) 3. The travel planning system of claim 1 wherein to execute a second set of seat availability queries to the first source or a different one of the multiple sources the availability process makes multiple, sequential seat availability queries to the first source or a different one of the multiple sources of seat availability information.

(Previously Presented) 4. The travel planning system of claim 1 wherein to execute a second set of seat availability queries the availability process makes multiple simultaneous seat availability queries to multiple, ones of the multiple sources of seat availability information.

(Previously Presented) 5. The travel planning system of claim 1 wherein the first source or a different one of the multiple sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and monetary-cost.

(Previously Presented) 6. The travel planning system of claim 5 wherein the travel planning system controls costs by setting a threshold limit on the availability process to access the sources for at least one of the costs.

(Original) 7. The travel planning system of claim 6 wherein the thresholds are timeouts or price limits.

(Previously Presented) 8. The travel planning system of claim 7 wherein the availability process prioritizes queries to the first source or a different one of the multiple sources of seat availability information to remain under a specified cost limit.

(Previously Presented) 9. The travel planning system of claim 1 wherein the first source or a different one of the multiple sources of seat availability information is a source of

predicted availability information that generate replies with differing quality properties including
at least one of freshness, confidence, precision, and validity.

(Original) 10.   The travel planning system of claim 1 wherein the availability process
determines tradeoffs between the cost of a query and the properties of the response.

(Currently Amended) 11.   The travel planning system of claim 1 wherein the
availability process: ~~wherein the availability process~~
speculatively determines the ~~determines~~ travel options using ~~low-quality, uncertain, or
missing~~ availability data that is determined to be low-quality data as though ~~they~~ the data were
high-quality ~~or certain~~ data.

(Currently Amended) 12.   The travel planning system of claim 11 wherein
speculatively determines produces the low-quality ~~answers,~~ availability data and ~~used~~ are not
returned from any external source of availability information but are guessed or computed
internal to the travel planning process.

(Currently Amended) 13.   The travel planning system of claim 11 wherein ~~the results~~
travel options produced from speculatively determining ~~travel options~~ are used to decide what
additional seat availability queries should be issued, what sources should be queried, what
quality data are needed, or what cost to incur to get additional information.

(Previously Presented) 14.   The travel planning system of claim 1 wherein fare
information is determined and the travel planning system processes scheduling and fare
information, and the scheduling and fare information along with availability data are sent to an
intelligent client for further processing and integration by the client.

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(Previously Presented) 15. A computer program product embodied on a computer readable medium for use with a travel planning system for determining availability of a seat for a mode of transportation, comprises instructions for causing a computer to:

receive a set of instances of transportation that satisfy a user query;

determine quality of a first set of seat availability information from a first source of availability information to guide a travel planning system to determine a subsequent set of instances of transportation for which a seat is available, and if the quality of the seat availability information is low, execute a second set of seat availability queries to the first source or a different source of seat availability information to provide a second set of seat availability information from the first source or the different source of seat availability information; and

produces, from the second set of seat availability information and a set of the instances of transportation, a set of instances of transportation, for which a seat is available.

(Previously Presented) 16. The computer program product of claim 15 further comprising instructions to:

send the second set of seat availability queries to a different higher quality source of seat availability information if the results from the first source are low quality.

(Previously Presented) 17. The computer program product of claim 15 further comprising instructions to:

send multiple, sequential seat availability queries to multiple ones of the multiple sources of seat availability information, with at least one of the multiple ones of the multiple sources being predictor sources of seat availability information.

(Previously Presented) 18. The computer program product of claim 15 wherein the multiple sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and charges and the program further comprising instructions to:

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set a threshold limit to access the sources for at least one of the costs.

(Previously Presented) 19.   The computer program product of claim 15 wherein the multiple sources of seat availability information generate seat availability information with differing quality properties including at least one of freshness, confidence, precision, and validity.

(Previously Presented) 20.   The computer program product of claim 15 further comprising instructions to:

determine tradeoffs between the cost of a query and the properties of the seat availability information.

(Currently Amended) 21.   A method executed in a computer system for determining availability of a seat for a mode of transportation, comprises:

~~executing~~ producing in the computer system a first set of seat availability queries, to send to a first source of seat availability information for a first set of instances of transportation;

evaluating in the computer system a quality measure of seat availability information received from the first source of seat availability information, to guide a travel planning system in determining a set of instances of transportation for which a seat is available by:

~~executing~~ producing in the computer system a second set of seat availability queries, to send to the first source or a different source of seat availability information based ~~on the outcome of the~~ evaluating quality of the availability information to provide the set of instances of transportation for which a seat is available.

(Previously Added) 22.   The method of claim 21 further comprising:

receiving the set of instances of transportation from a travel planning system in response to a user query.

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(Previously Presented) 23.   The method of claim 21 further comprising:

sending the second set of seat availability queries to a different source of seat availability information if the results from the first source do not have a sufficient level of quality.

(Previously Added) 24.   The method of claim 21 further comprising:

sending multiple, sequential seat availability queries to multiple sources that predict seat availability information.

(Previously Presented) 25.   The method of claim 21 wherein the sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and charges and the method further comprises:

setting a threshold limit to access the sources for at least one of the costs.

(Previously Presented) 26.   The method of claim 21 wherein the sources of seat availability information generate seat availability information with differing quality properties including at least one of freshness, confidence, precision, and validity.

(Previously Presented) 27.   The method of claim 21 further comprising:

determining tradeoffs between the cost of a query and the properties of the seat availability information.

(Previously Presented) 28.   The travel planning system of claim 1 wherein probabilistic confidence bounds describing uncertainty in measurements of seat availability are placed on the quality properties.

(Previously Presented) 29.   The travel planning system of claim 1 wherein actual seat availability queries are sent to a source of airline seat availability information and are selected to

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increase the number of available solutions found or to increase the likelihood that the availability of the desirable solutions has been verified with high confidence.

(Previously Presented) 30. The travel planning system of claim 1 wherein multiple responses, which contain different seat availability information and/or quality properties are simultaneously maintained in the travel planning system.

(Previously Presented) 31. The travel planning system of claim 1 further comprising:
a faring process that determines fares valid for at least some of the instances in the set of instances of transportation.

(Previously Presented) 32. The travel planning system of claim 1 further comprising:
a faring process that determines fares valid for at least some of the instances in the set of instances of transportation for which a seat is available.

(Previously Presented) 33. The travel planning system of claim 1 further comprising:
a faring process that determines fares valid for at least some of the instances in the set of instances of transportation and wherein the availability process is executed after the faring process.

(Previously Presented) 34. The travel planning system of claim 1 further comprising:
a faring process that determines fares valid for at least some of the instances in the set of instances of transportation for which a seat is available, and wherein the availability process is executed before the faring process.